Seat No.

Total No. of Pages : 2

OCT-NOV 2025 WINTER EXAMINATION

11731 Bachelor of Technology (NEP-2.0)

Sub. Name: Basic Electronics Engineering

Sub. Code: 108729

Day and Date: Tuesday ,27-01-2026 **Total Marks: 60**

Time: 10:30 AM To 01:00 PM

Instructions:
1. **All questions are compulsory**
2. **Assume suitable data wherever necessary and mention it boldly**
3. **Draw neat labelled diagrams wherever necessary**
4. **Figures to the right indicate full marks**

Q1) Attempt Any Three Questions. **[15]**

a. Explain LED and its characteristics. **[5]**

b. Explain Half Wave Rectifier with neat diagram and waveforms. **[5]**

c. Explain Bridge Full Wave Rectifier with C filter with neat diagram and waveforms. **[5]**

d. Compare CB, CC and CE Configuration. **[5]**

Q2) Attempt Any Three Questions. **[15]**

a. Describe Direct coupled amplifier with neat diagram. **[5]**

b. Explain Transformer coupled amplifier with neat diagram, advantage and disadvantages. **[5]**

c. Explain single stage CE amplifier with neat diagram and frequency response. **[5]**

d. Draw and explain two stages RC coupled CE amplifier. **[5]**

Q3) Attempt Any Three Questions. **[15]**

a. Compare ideal and practical specifications of Op-amp. **[5]**

b. Describe application of Op-amp as inverting amplifier with neat diagram. **[5]**

c. Explain application of Op-amp as comparator. **[5]**

d. Describe application of Op-amp as non-inverting amplifier with neat diagram. **[5]**

Q4) Attempt Any Three Questions. **[15]**

a. What is De-multiplexer? Explain 1:2 De-mux with truth table. **[5]**

b. Explain half adder with neat diagram and truth table. **[5]**

c. Verify De morgan's theorem with truth table. **[5]**

d. Convert following number system: **[5]**
I) Decimal to Hexadecimal: 674325 II) Binary to Hexadecimal: 1011110011

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -
This Question Paper may be distributed for following Subjects as common code.
सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (11731) Bachelor of Technology (NEP-2.0) (108729) Basic Electronics Engineering Part 1 SEM 1